ACC.11
60th Annual Scientific Session & Expo

E296
JACC April 5, 2011
Volume 57, Issue 17

CARDIAC FUNCTION AND HEART FAILURE

CARVEDILOL VERSUS SUSTAINED RELEASE METOPROLOL FOR SYSTOLIC HEART FAILURE: A COMPARATIVE EFFECTIVENESS ANALYSIS

ACC Poster Contributions
Ernest N. Morial Convention Center, Hall F
Monday, April 04, 2011, 9:30 a.m.-10:45 a.m.

Session Title: Myocardial Function/Heart Failure -- Clincial Pharmacological Treatment
Abstract Category: 21. Myocardial Function/Heart Failure–Clinical Pharmacological Treatment
Session-Poster Board Number: 1085-27

Authors: *Supriya Shore, Vikas Aggarwal, Ronald Zolty, Jacobi Medical Center, Bronx, NY, Montefiore Medical Center, Bronx, NY*

Background: Comparative effectiveness of carvedilol (CD) & sustained release metoprolol (MS) for systolic heart failure (HF) has never been reported.

Methods: Consecutive patients with ejection fraction (EF) <45%, initiated & maintained on CD or MS throughout the study duration were included. Baseline comparisons were done using standard parametric & non-parametric tests. Hazard Ratio (HR) was estimated using Cox proportional hazard modeling & cumulative hazard curves were generated.

Results: From Jan 2000 to Dec 2008, 3581 patients were enrolled (1688 on MS / 1893 on CD) & followed up until June 2010. On average, patients were 65 yrs old, 56% were men, 33% white & 53% had ischemic HF. No significant difference in demographics, co-morbidities & use of other HF meds was noted. Median follow up was 4.0 yrs (MS) & 3.5 yrs (CD). Heart Rate at 1 yr (Mean + SD; 72 + 20 vs 71 + 21, p=0.24), 3 yrs (70 + 18 vs 71 + 18, p=0.64) & 5 yrs (70 + 19 vs 71 + 20, p=0.69) was similar by MS & CD use respectively.

Baseline EF (31.2 + 9.5 vs 31.6 + 9.7, p=0.26) was similar by MS & CD use respectively. Significantly better EF was observed in MS group at 1 yr (33.6 + 8.5 vs 31.5 + 8.8, p<0.01), 3 yrs (35.1 + 8.4 vs 31.4 + 8.7, p<0.01) & 5 yrs (35.0 + 9.6 vs 32.3 + 8.4, p<0.01). However, the risk of experiencing mortality at any time during the study was similar, adjusted HR for MS compared to CD = 0.94 (95% CI: 0.83 - 1.07).

Conclusion: Compared to Carvedilol, Metoprolol Succinate was associated with better EF improvement but this benefit did not translate into improved survival.